

Figure 1

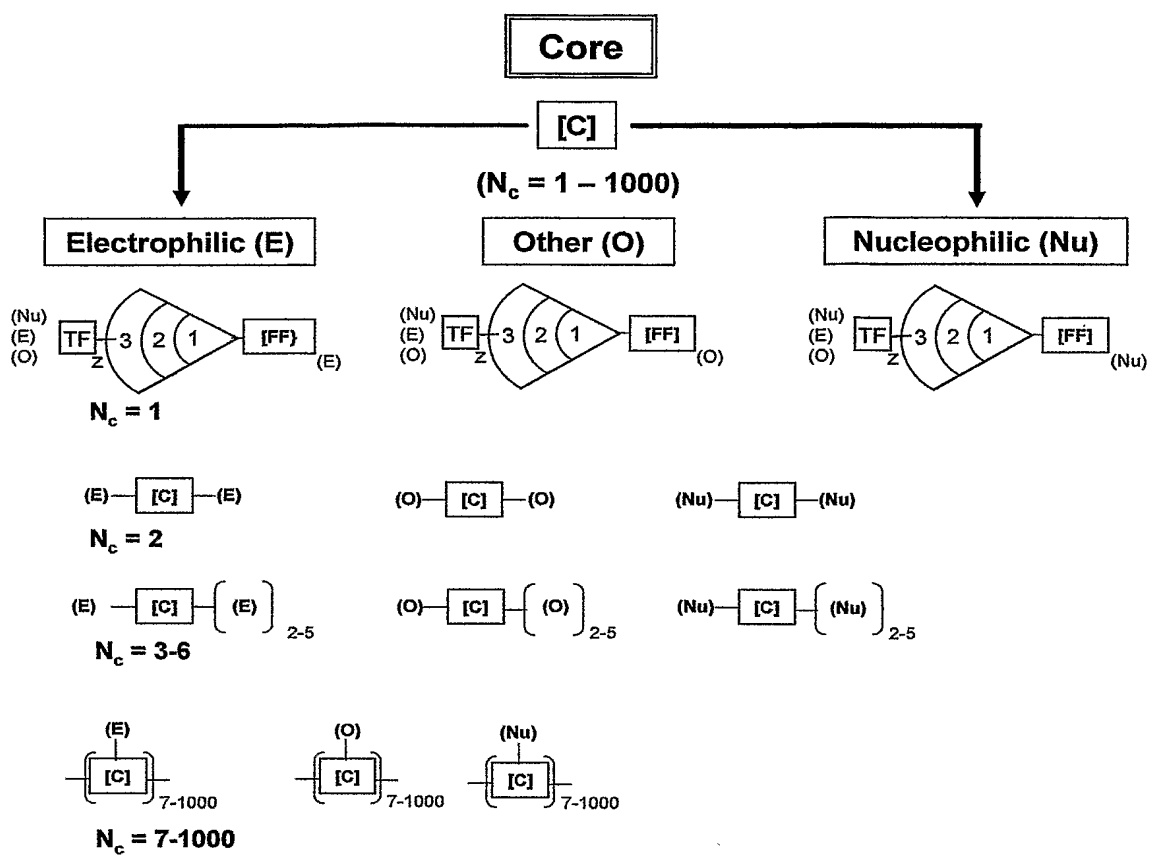
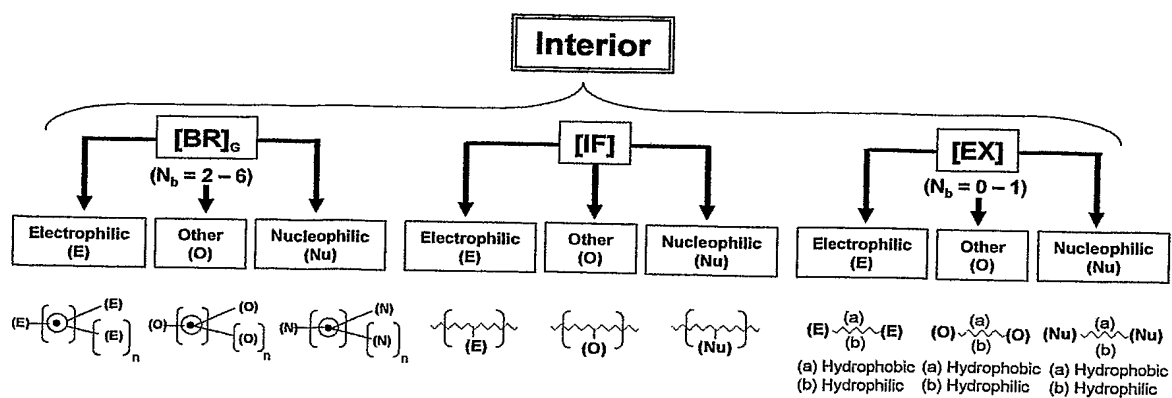


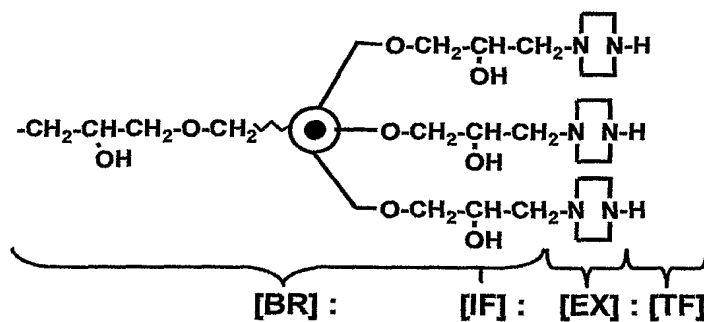
Figure 2



Where:  $n = 1-4$

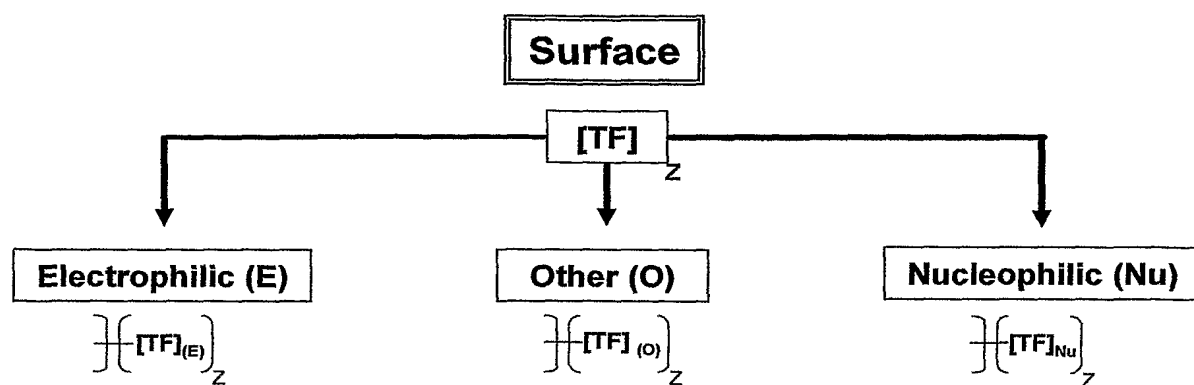
Figure 3

## Branch Cell Structure Resulting from a Tetra Glycidyl Ether



Where:  $N_b = 3$

Figure 4



**Where:**  $z = N_c N_b^G$

Figure 5

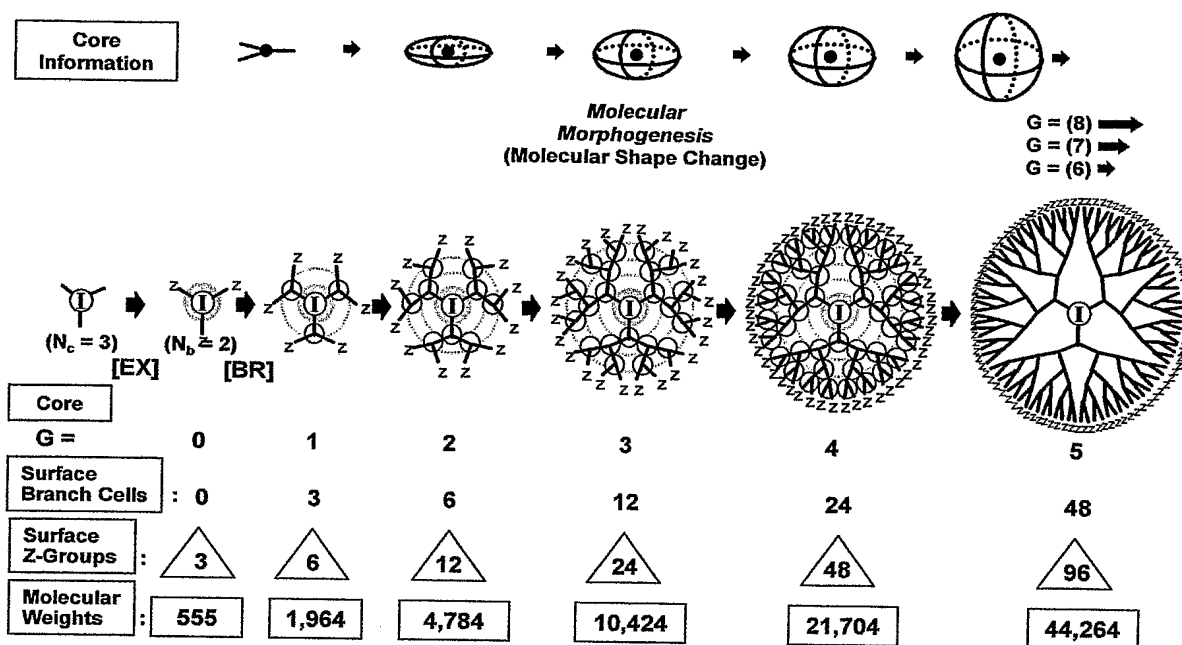


Figure 6

### Nanoscale Sterically Induced Stoichiometry (NSIS) Effects

$S_1$  = Size of Core, Scaffolding Core, Super Core

$S_2$  = Size of Branch Cell Reagent, FF-Dendron

Where:  $[TF] = \bullet$

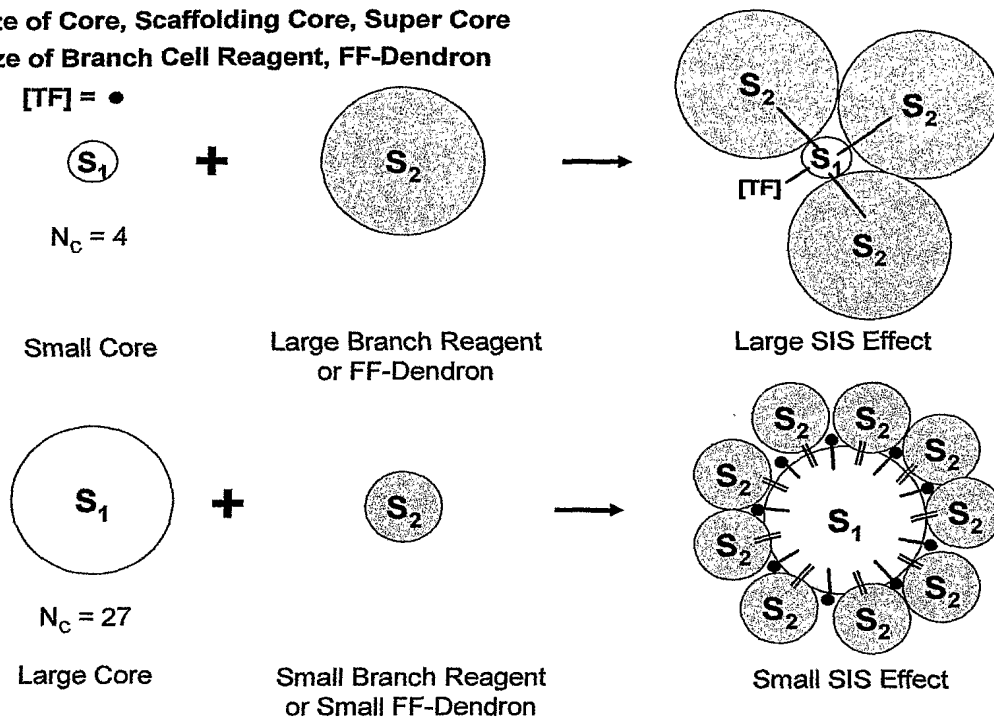


Figure 7

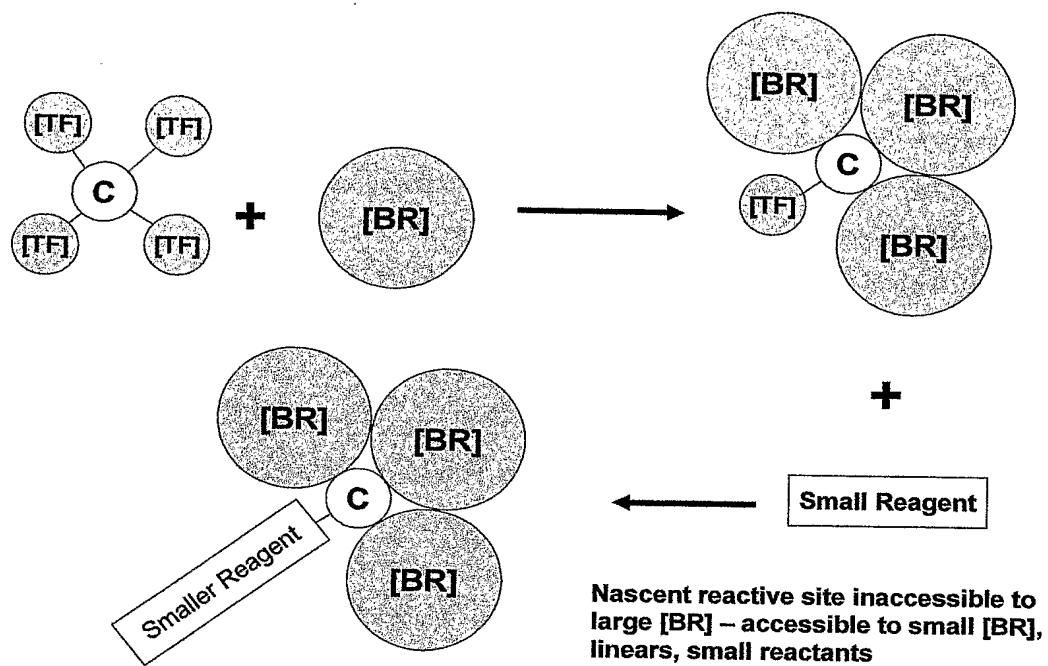
**NSIS Induced Formation of Nascent Functionality/Reactivity**

Figure 8



**Combinatorial Reactivities of Nucleophilic (Nu), Electrophilic (E), Other (O) (Free Radical) Features of the Core [C], Branch Cell Reagent [BR], Extender [EX], Focal Point Functional Dendron (FF-D) and Terminal Functionality [TF]**

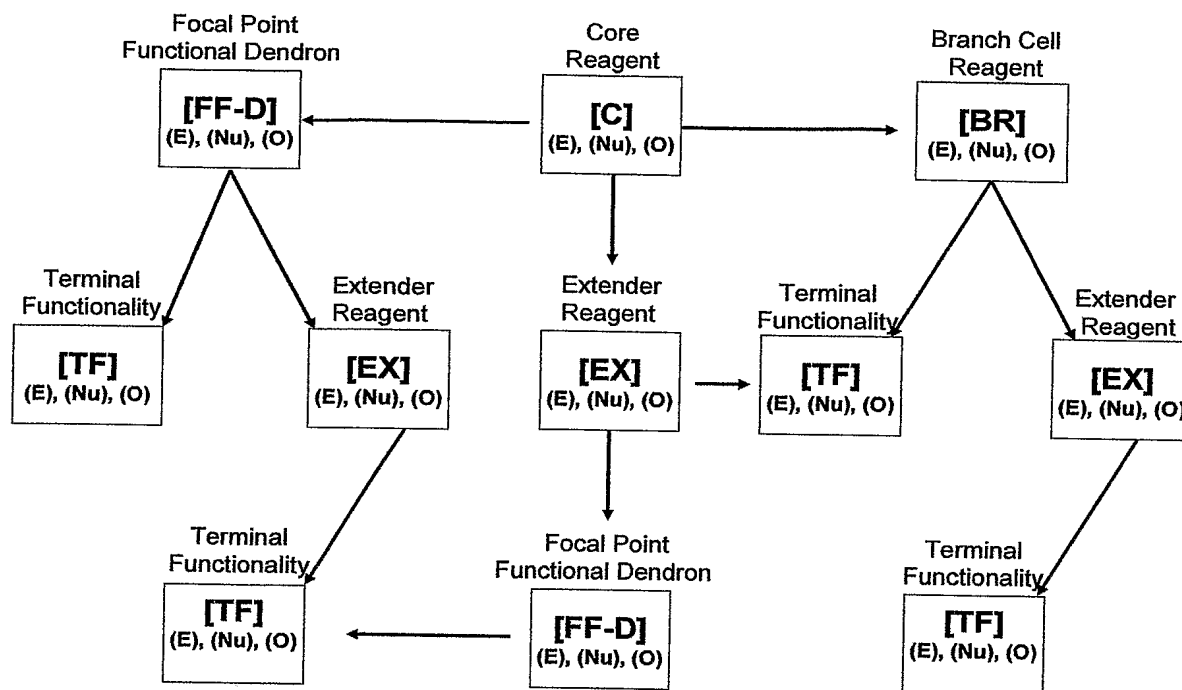
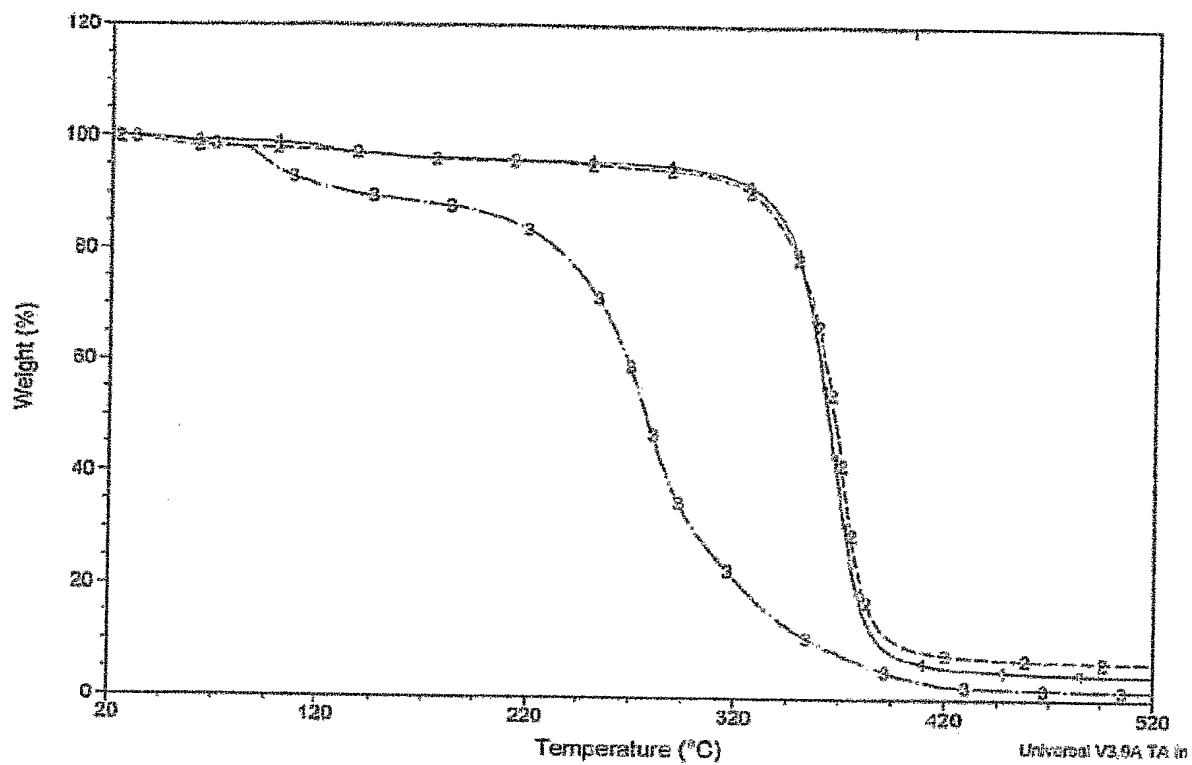
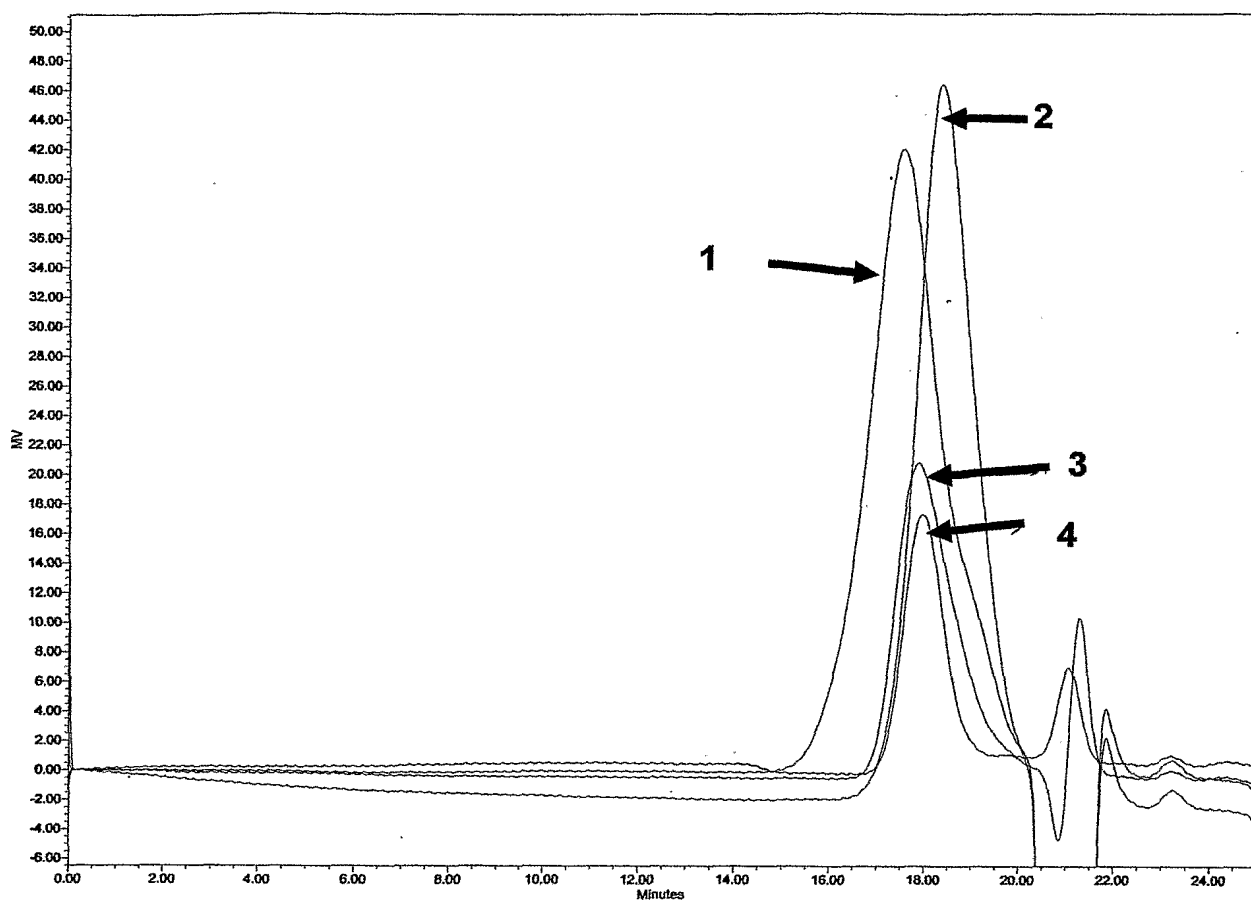


Figure 9

**Figure 10**

**Figure 11**